

#5 Operational Bridging Successes from the 2013 Aviation Weather Testbed Summer Experiment

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The Aviation Weather Testbed (AWT) held its 3rd Summer Experiment from 12 to 23 August 2013. The experiment was designed to simulate operational forecast desks during the convective season. Each desk was tasked with producing pseudo-operational products throughout the day while making use of new methodologies, data sets, displays, and tools. The primary desks operated during the experiment were: Convective SIGMET, Collaborative Convective Forecast Product (CCFP), Global Graphics (convection), Situational Awareness (GOES-R), and the National Aviation Meteorologist (NAM), which will be the primary focus herein due to its purpose of bridging weather and aviation operations.

In 2012, the NAM position was created to bridge the gap of weather information and air traffic operations by stationing two AWC meteorologists within the FAA's Air Traffic Control System Command Center (ATCSCC). These meteorologists provide decision support to the FAA by briefing ATCSCC personnel face-to-face on any weather impacts ranging from the individual terminal scale to the national planning scale. The NAMs produce an event-driven Aviation Weather Statement (AWS) that communicates areas of impactful weather to FAA decision makers. Currently the AWS is only issued in the northeast United States, which has the greatest density of air traffic, but the experimental NAM desk designed to examine benefits and challenges of issuing AWSs over the entire CONUS.

The AWT is fortunate to be able to leverage data and information from a local GOES-R specialist. Several GOES-R products were made available during the experiment and aided the creation of AWSs issued by the NAM desk. Convective initiation and cessation are important events that impact the routing of air traffic and GOES-R products such as cloud-top cooling (CTC), convective initiation (CI), and nearcasting were all shown to add value to these forecasts. In addition to convective AWSs, GOES-R low cloud and stratus products were used frequently in the San Francisco region to address when the marine stratus or fog may lift in the morning.

One of the overarching successes of the experiment was duplicating operational display and product composition software, allowing participants to focus on evaluating new products and provide valuable feedback instead of being consumed by knobology or an unfamiliar work environment. Due to a high-impact event, this framework allowed forecasters in the AWT to issue operational AWSs on 22 August 2013, a transition met with great appreciation by the FAA.

A diverse group of participants representing general aviation (GA), commercial flight services, NOAA/NWS, NOAA/OAR, NCAR, FAA Aviation Weather Research program, and academia and the interaction thereof was a key component to the success of the 2013 Summer Experiment. The presentation will discuss the AWT Summer Experiment, interactions, transitions to operations, and areas where additional research and exploration are needed.